



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2017-0343; Directorate Identifier 2017-CE-005-AD; Amendment 39-18936; AD 2017-13-06]**

**RIN 2120-AA64**

**Airworthiness Directives; DG Flugzeugbau GmbH Gliders**

**AGENCY:** Federal Aviation Administration (FAA), Department of Transportation (DOT).

**ACTION:** Final rule.

**SUMMARY:** We are adopting a new airworthiness directive (AD) for all DG Flugzeugbau GmbH Models DG-400, DG-500M, DG-500MB, DG-800A, and DG-800B gliders. This AD results from mandatory continuing airworthiness information (MCAI) issued by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as a manufacturing defect in certain textile fabric covered fuel hoses, which could cause the fuel hose to fail. We are issuing this AD to require actions to address the unsafe condition on these products.

**DATES:** This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2017-0343; or in person at Document Management Facility, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE, Washington, DC 20590.

For service information identified in this AD, contact DG Flugzeugbau GmbH, Otto-Lilienthal Weg 2, D-76646 Bruchsal, Germany; telephone: +49 (0)7251 3202-0; email: [info@dg-flugzeugbau.de](mailto:info@dg-flugzeugbau.de); Internet: [http://www.dg-flugzeugbau.de/en/?noredirect=en\\_US](http://www.dg-flugzeugbau.de/en/?noredirect=en_US). You may view this referenced service information at the FAA, Small Airplane Directorate, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the FAA, call (816) 329-4148. It is also available on the Internet at <http://www.regulations.gov> by searching for Docket No. FAA-2017-0343.

**FOR FURTHER INFORMATION CONTACT:** Jim Rutherford, Aerospace Engineer, FAA, Small Airplane Directorate, 901 Locust, Room 301, Kansas City, Missouri 64106; telephone: (816) 329-4165; fax: (816) 329-4090; email: [jim.rutherford@faa.gov](mailto:jim.rutherford@faa.gov).

#### **SUPPLEMENTARY INFORMATION:**

##### **Discussion**

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to all DG Flugzeugbau GmbH Models DG-400, DG-500M, DG-500MB, DG-800A, and DG-800B gliders. The NPRM was published in the *Federal Register* on April 21, 2017 (82 FR 18722). The NPRM proposed to correct an unsafe condition for the specified products and was based on mandatory continuing airworthiness information (MCAI) originated by an aviation authority of another country.

The MCAI states:

During service and annual inspection, DG found that some fuel hoses with textile fabric covering, installed from the beginning of the year 2015, had become weak or untight with time. The suspected root cause for this premature degradation is a manufacturing defect of a certain batch of fuel hoses.

This condition, if not detected and corrected, may lead to kinking of the fuel hoses, possibly resulting in a reduced fuel supply and consequent partial or total loss of available power. To address this unsafe condition, DG-Flugzeugbau published Technical Note TN 800-44, 500-10, DG-SS-02 providing inspection and replacement instructions.

For the reason described above, this [EASA] AD requires inspection and replacement of the affected fuel hoses.

The MCAI can be found in the AD docket on the Internet at <https://www.regulations.gov/document?D=FAA-2017-0343-0002>.

### **Comments**

We gave the public the opportunity to participate in developing this AD. We received no comments on the NPRM or on the determination of the cost to the public.

### **Conclusion**

We reviewed the relevant data and determined that air safety and the public interest require adopting this AD as proposed except for minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM.

### **Related Service Information under 1 CFR part 51**

We reviewed DG Flugzeugbau GmbH Technical note No. 800-44, 500-10, DG-SS-02, dated November 9, 2016, and co-published as one document; DG-400 diagram 8, 6 TN DG-SS-02; DG-500M diagram 14, TN 500/10; DG-500MB diagram 14, TN 500/10; DG-800A/LA diagram 11, TN 800/44; DG-800B Solo 2625 diagram 11, TN 800/44; DG-800B Solo 2625 diagram 11a, TN 800/44; DG-800B Solo 2625 diagram 11b, TN 800/44; and DG-800B ab W.Nr. 8-155 / from ser. no. 8-155 on, diagram 11d, TN 800/44, all diagrams issued October 2016. In combination, the service information describes procedures for inspecting and replacing the fuel hoses on different aircraft model variants covered by the applicability of this AD. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section of this AD.

### **Costs of Compliance**

We estimate that this AD will affect 59 products of U.S. registry. We also estimate that it will take about 2 work-hours per product to comply with each inspection required by this AD. The average labor rate is \$85 per work-hour.

Based on these figures, we estimate the inspection cost of this AD on U.S. operators to be \$10,030, or \$170 per product.

In addition, we estimate that each replacement action required by this AD will take about 8 work-hours and require parts costing \$500. Based on these figures, we estimate the replacement cost of this AD on U.S. operators to be \$69,620, or \$1,180 per product.

### **Authority for This Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in “Subtitle VII, Part A, Subpart III, section 44701: General requirements.” Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### **Regulatory Findings**

We determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this AD:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2017-0343; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains the NPRM, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (telephone (800) 647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

## **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

### **Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new AD:

2017-13-06 **DG Flugzeugbau GmbH**: Amendment 39-18936; Docket No. FAA-2017-0343; Directorate Identifier 2017-CE-005-AD.

#### **(a) Effective Date**

This airworthiness directive (AD) becomes effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

#### **(b) Affected ADs**

None.

#### **(c) Applicability**

This AD applies to DG Flugzeugbau GmbH Models DG-400, DG-500M, DG-500MB, DG-800A, and DG-800B gliders, all serial numbers, that:

- (1) have textile fabric covered fuel hoses installed in the fuselage; and
- (2) are certificated in any category.

Note 1 to paragraph (c) of this AD: Metal fabric covered fuel hoses installed in the engine area are not affected by this AD.

**(d) Subject**

Air Transport Association of America (ATA) Code 28: Fuel.

**(e) Reason**

This AD was prompted by mandatory continuing airworthiness information (MCAI) originated by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as a manufacturing defect in certain textile fabric covered fuel hoses, which could cause the fuel hose to fail. We are issuing this AD to prevent failure of the fuel hose, which could cause reduced fuel supply and result in partial or total loss of power.

**(f) Actions and Compliance**

Unless already done, do the following actions:

(1) Within the next 30 days after [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER] (the effective date of this AD), inspect all textile fabric covered fuel hoses located in the fuselage following Instructions 1. of DG Flugzeugbau GmbH Technical note (TN) No. 800-44, 500-10, DG-SS-02, dated November 9, 2016.

Note 2 to paragraph (f)(1) through (6) of this AD: DG Flugzeugbau GmbH TN No. 800-44, DG Flugzeugbau GmbH TN No. 500-10, and DG Flugzeugbau GmbH TN No. DG-SS-02, are all dated November 9, 2016, and co-published as one document.

(2) If any kinking or wet fabric covering is found during the inspection required in paragraph (f)(1) of this AD, within the next 14 days after the inspection, replace all textile fabric covered fuel hoses located in the fuselage following Instructions 2. of DG Flugzeugbau GmbH TN No. 800-44, 500-10, DG-SS-02, dated November 9, 2016, and DG-400 diagram 8, 6 TN DG-SS-02; DG-500M diagram 14, TN 500/10; DG-500MB diagram 14, TN 500/10; DG-800A/LA diagram 11, TN 800/44; DG-800B Solo 2625

diagram 11, TN 800/44; DG-800B Solo 2625 diagram 11a, TN 800/44; DG-800B Solo 2625 diagram 11b, TN 800/44; and DG-800B ab W.Nr. 8-155 / from ser. no. 8-155 on, diagram 11d, TN 800/44, as applicable, all diagrams issued October 2016.

(3) If no kinking or wet fabric covering is found during the inspection required in paragraph (f)(1) of this AD, within the next 12 months after [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER] (the effective date of this AD), replace all textile fabric covered fuel hoses located in the fuselage following the instructions and diagrams specified in paragraph (f)(2) of this AD.

(4) Within 12 months after doing the replacements required in paragraph (f)(2) or (f)(3) of this AD, as applicable, and repetitively thereafter at intervals not to exceed 12 months, inspect all fuel hoses in the fuselage for any signs of wear, fissures, kinks, lack of tight fit, or leaks. For this inspection, the ignition switch must be turned on to run the electric fuel pump to demonstrate an operating fuel pressure. Do this inspection following Instructions 4. of DG Flugzeugbau GmbH TN No. 800-44, 500-10, DG-SS-02, dated November 9, 2016.

(5) If any signs of wear, fissures, kinks, lack of tight fit, or leaks are found during any inspection required in paragraph (f)(4) of this AD, replace the defective fuel hose in the fuselage following the instructions and diagrams specified in paragraph (f)(2) of this AD. Continue with the repetitive inspections as specified in paragraph (f)(4) of this AD.

(6) If no signs of wear, fissures, kinks, lack of tight fit, or leaks are found during any inspection required in paragraph (f)(4) of this AD, at intervals not to exceed 10 years, replace the fuel hoses in the fuselage with new fuel hoses following the instructions and diagrams specified in paragraph (f)(2) of this AD.

**(g) Other FAA AD Provisions**

The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs)*: The Manager, Standards Office, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to ATTN: Jim Rutherford, Aerospace Engineer, FAA, Small Airplane Directorate, 901 Locust, Room 301, Kansas City, Missouri 64106; telephone: (816) 329-4165; fax: (816) 329-4090; email: jim.rutherford@faa.gov. Before using any approved AMOC on any glider to which the AMOC applies, notify your appropriate principal inspector (PI) in the FAA Flight Standards District Office (FSDO), or lacking a PI, your local FSDO.

(2) *Airworthy Product*: For any requirement in this AD to obtain corrective actions from a manufacturer or other source, use these actions if they are FAA-approved. Corrective actions are considered FAA-approved if they are approved by the State of Design Authority (or their delegated agent). You are required to assure the product is airworthy before it is returned to service.

**(h) Related Information**

Refer to MCAI European Aviation Safety Agency (EASA) AD No.: 2016-0259, dated December 21, 2016, for related information. You may examine the MCAI on the Internet at <https://www.regulations.gov/document?D=FAA-2017-0343-0002>.

**(i) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) DG-400 diagram 8, issued October 2016 TN DG-SS-02.

(ii) DG-500M diagram 14, issued October 2016 TN 500/10.

(iii) DG-500MB diagram 14, issued October 2016 TN 500/10.

(iv) DG-800A/LA diagram 11, issued October 2016 TN 800/44.

(v) DG-800B Solo 2625 diagram 11, issued October 2016 TN 800/44.

(vi) DG-800B Solo 2625 diagram 11a, issued October 2016 TN 800/44.

(vii) DG-800B Solo 2625 diagram 11b, issued October 2016 TN 800/44.

(viii) DG-800B ab W.Nr. 8-155 / from ser. no. 8-155 on, diagram 11d, issued October 2016 TN 800/44.

(ix) DG Flugzeugbau GmbH Technical note (TN) No. 800-44, 500-10, DG-SS-02, dated November 9, 2016.

Note 3 to paragraph (i)(2)(ix) of this AD: DG Flugzeugbau GmbH TN No. 800-44, DG Flugzeugbau GmbH TN No. 500-10, and DG Flugzeugbau GmbH TN No. DG-SS-02, are all dated November 9, 2016, and co-published as one document.

(3) For service information identified in this AD, DG Flugzeugbau GmbH, Otto-Lilienthal Weg 2, D-76646 Bruchsal, Germany; telephone: +49 (0)7251 3202-0; email: [info@dg-flugzeugbau.de](mailto:info@dg-flugzeugbau.de); Internet: [http://www.dg-flugzeugbau.de/en/?noredirect=en\\_US](http://www.dg-flugzeugbau.de/en/?noredirect=en_US).

(4) You may view this service information at the FAA, Small Airplane Directorate, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the FAA, call (816) 329-4148. In addition, you can access this service information on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2017-0343.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to:

<http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Kansas City, Missouri, on June 19, 2017.

Pat Mullen,  
Acting Manager, Small Airplane Directorate,  
Aircraft Certification Service.

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